

CURRICULUM VITAE

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Date of Birth: March 10, 1978.

Languages: English, Hebrew and Arabic.

Positions

- 2013 – present: Staff Scientist at Dr. Yaqub Hanna's group, the Weizmann Institute of Science, Rehovot, Israel. Research topic: **Cross-species chimerism with human ground state naïve induced pluripotent stem cells**.
- 2012 – 2013: Third year of HFSP postdoc fellowship. Host: Prof. Benny Shilo, the Weizmann Institute of Science, Rehovot, Israel. Collaborations with different researchers to develop different live imaging approaches to visualize and study morphological movements of different tissues during the development of Mouse and *Drosophila* embryos.
Research topic: **Seeing is Believing: Visualizing Morphogenesis during Embryogenesis**.
- 2009 – 2012: Postdoctoral training with Prof. Lee Niswander, Howard Hughes Medical Institute, University of Colorado Denver, USA.
Research topic: **The genetics and cell biology of neural tube closure in the mouse embryo**.

Education

- 2003 – 2009: Feinberg Graduate School of the Weizmann Institute of Science, Rehovot, Israel. Direct Ph.D. program at the Department of Molecular Genetics.
Thesis topic: **Execution of Morphogenetic Processes in *Drosophila* by Distinct Actin-Polymerization Machineries**. Advisors: Prof. Benny Shilo and Dr. Eyal Schejter. Completion date: May, 2009.
- 2000 – 2003: In parallel to the B.Sc. studies, I carried out a research project at Prof. Mike Fainzilber's lab, Department of Biological Chemistry, the Weizmann Institute of Science, Rehovot 76100, Israel.
Research topic: **Retrograde trafficking of neuronal p75 interactors to the nucleus**.
- 1999 – 2003: B.Sc. degree with honors in "*Genetics, Breeding and Biotechnology*", Department of Plant Science and Agriculture, the Faculty of Agricultural, Food and Environmental Quality Science, The Hebrew University of Jerusalem, Rehovot 76100, Israel.

Other Appointments and Practical Training

- 2016 – present: 3D animation course, HackerU, Israel.
- 2014 – 2015: Certified **senior coacher** - personal trainer, couple trainer, business trainer and qualified team coach. International College for Coaching and Management (ICCM), Israel.
- 2013 – present: Initiating and co-establishing the **Light Microscopy Imaging Center at the Weizmann Institute of Science** in Israel. As a pilot, I began with recruiting the resources to purchase the Zeiss Light Sheet Z.1 microscope. Today, I am an active consultant for the facility.
- 2013 – present: Initiating and executing an **educational workshops program** to extraordinary 10th grade high school pupils in Israel. Topic: Popular Science to expand the awareness of high school pupils to scientific research both in the academia and in the industry.
- October-November 2012: **Teaching assistant** at the Advanced Light Microscopy lab course at the Weizmann Institute of Science in Israel. Teacher: Dr. Eyal Schejter.

Awards and Honors

- The International Human Frontier Science Program Organization award of a 3-year fellowship for postdoctoral research, 2010-2013.
- The Women in Science Award, The Weizmann Institute of Science, Israel, 2009.
- John F. Kennedy Prize of excellence in recognition of Ph.D. accomplishments, The Weizmann Institute of Science, Israel, 2009.

- Interviewed in a TV program by the president of Israel, Mr. Shimon Peres, to discuss education and its influence on the issue of Israeli Arab-Jewish co-existence, the Israeli television, Channel 1, April 2009.
- The Dr. Otto Schwarz Memorial Graduate Scholarship Fund, 2008.
- Katzir Travel Fellowship, 2008.
- Featured in the article “Best minds” describing the scientific work of ten future promising young scientists, the Israeli paper “Haaretz”, December, 2007.
- Dean's Honors List, Weizmann Institute of Science, 2007.
- The Dr. Otto Schwarz Memorial Graduate Scholarship Fund, 2007.
- Israeli council for higher education fellowship for exceptional Ph.D. candidates from the Arab-Israeli sector, 2006-2009.
- B.Sc. degree with Honor, Hebrew University, Faculty of agriculture, Rehovot, Israel.

Publications

- Yair S. Manor, **Rada Massarwa** and Jacob H. Hanna. Establishing the human naïve pluripotent state. *Curr. Opin. Gene. Dev.*, 2015, 34:35-45. * **Co-corresponding author**.
- Itay Maza, Inbal Caspi, Asaf Zviran, Elad Chomsky, Yoach Rais, Sergey Viukov, Shay Geula, Jason D. Buenrostro, Leehee Weinberger, Vladislav Krupalnik, Suhair Hanna, Mirie Zerbib, James R. Dutton, William J. Greenleaf, **Rada Massarwa***, Noa Novershtern and Jacob H. Hanna. Frequent and Transient Acquisition of Pluripotency During Somatic Cell Trans-Differentiation with iPSC Reprogramming Factors. *Nature Biotechnology*, 2015, 33(7):769-74. * **Co-corresponding author**.
- Shay Geula, Sharon Moshitch-Moshkovitz, Dan Dominissini, Abed AlFatah Mansour, Nitzan Kol, Mali Salmon Divon, Vera Hershkovitz, Eyal Peer, Nofar Mor, Yair S. Manor, Moshe Shay Ben Haim, Eran Eyal, Sharon Yunger, Yishay Pinto, Diego Adhemar Jaitin, Sergey Viukov, Yoach Rais, Elad Chomski, Mirie Zerbib, Itay Maza, Yoav Rechavi, **Rada Massarwa**, Suhair Hanna, Ido Amit, Erez Y. Levanon, Ninette Amariglio, Noam Stern-Ginossar, Noa Novershtern, Gideon Rechavi and Jacob H. Hanna. m⁶A mRNA Methylation Facilitates Adequate Resolution of Naïve Pluripotency Towards Lineage Priming. *Science*, 2015. 347:1002-6.
- Xiang Xiao, Dolores D. Mruk, Elizabeth I. Tang, **R'ada Massarwa***, Ka Wai Mok, Nan Li, Chris K. C. Wong, Will M. Lee, Scott B. Snapper, Ben-Zion Shilo, Eyal D. Schejter, C. Yan Cheng. N-WASP is required for structural integrity of the blood-testis barrier. *Plos Genetics*, 2014. 10(6): e1004447. ***Co-first author**.
- Gafni Ohad., Weinberger Leehee., Mansour A.A, Manor Y.S., Chomsky E., Ben-Yosef D., Kalma Y., Viukov S., Maza I., Zviran A., Rais Y., Shipony Z., Mukamel Z., Krupalnik V., Zerbib M., Geula S., Caspi I., Schneir D., Shwartz T., Gilad S., Zalcenstein D.A., Benjamin S., Amit I., Tanay A., **Massarwa Rada***, Novershtern Noa. & Hanna Jacob H. Derivation of novel human ground state naive pluripotent stem cells. *Nature*, 2013. 504: 282-286. * **Co-corresponding author**.
- Jonathon J. Parker, Kalen R. Dionne, **R'ada Massarwa**, Marci Klaassen, Nicholas K. Foreman, Lee Niswander, Peter Canoll, B.K. Kleinschmidt-DeMasters and Allen Waziri. Gefitinib selectively inhibits tumor cell migration in EGFR-amplified human glioblastoma, *Neuro-oncology* 2013, June; doi: 10.1093/neuonc/not053.
- **R'ada Massarwa**, Heather J. Ray and Lee Niswander. Morphogenetic movements in the neural plate and neural tube: mouse, *WIREs Dev Biol* 2013, May; doi: 10.1002/wdev.120.
- **R'ada Massarwa** and Lee Niswander. Zippering up the embryo, *Cell picture show* 2013 Feb; Tubes in Development.
- **R'ada Massarwa** and Lee Niswander. Seeing is believing: a novel way to look at mammalian development, *HFSP Frontier Science, Awardees Articles* 2013 Jan.
- **R'ada Massarwa** and Lee Niswander. In toto live imaging of mouse morphogenesis and new insights into neural tube closure, *Development* 2013 Jan; 140: 226–236. * **First and Co-corresponding author**. ***Rated as Exceptional by the Faculty of 1000**.
- Boaz Gildor, **R'ada Massarwa**, Ben-Zion Shilo and Eyal D. Schejter. Making muscles: Arp, two, three, *Fly*. 2010 April/May/June; 4(2):1-4.
- Boaz Gildor, **R'ada Massarwa**, Ben-Zion Shilo and Eyal D. Schejter. The SCAR and WASp nucleation promoting factors act sequentially to mediate *Drosophila* myoblast fusion, *EMBO Rep*. 2009 Sep;

10(9):1043-50.

- **R'ada Massarwa**, Eyal D. Schejter and Ben-Zion Shilo. Apical secretion is directed by the Formin family protein Diaphanous in epithelial tubes of the *Drosophila* embryo, *Dev. Cell.* 2009 Jun; 16(6):877-88.
- **R'ada Massarwa**, Shari Carmon, Ben-Zion Shilo and Eyal D. Schejter. WIP/Wasp-Based Actin-Polymerization Machinery Is Essential for Myoblast Fusion in *Drosophila*, *Dev. Cell.* 2007 Apr; 12(4): 557-69.
- A mini-review summarizing this paper appeared in the same issue: Sree Devi Menon and William Chia. Actin on Multiple Fronts to Generate a Muscle Fiber, *Dev. Cell.* 2007 Apr; 12(4): 479-81.
- Shlomit Hanz, Eran Perlson, Dianna Willis, Juan J. Huerta, **R'ada Massarwa**, Jun-Qi Zheng, Matthias Kohler, Jan Van-Minner, Alon Sabban, Martin Koltzenburg, Jeffery L. Twiss, and Mike Fainzilber. Axoplasmic importins enable retrograde injury signaling in lesioned nerve, *Neuron.* 2003, 40(6): 1095-104.

International courses and meetings

- **MBL Optical Microscopy and Imaging in the Biomedical Sciences Course**, Woods Hole, USA, 9-19 September 2015.
- **MBL Immunohistochemistry and Microscopy Course**, Woods Hole, USA, 14-19 April 2015.
- EMBO practical course- **Light sheet microscopy**, Dresden, Germany, 18-29 August 2014. Oral presentation
- **Israel Society for Microscopy Meeting**, Safed, Israel, May 29-30, 2013. Selected talk
- **Weizmann meeting on muscle - from development to the clinic**, Rehovot, Israel, April 30, 2012.
- **2012 ASCB annual meeting at Denver**, Denver, CO, USA December 3-7, 2011.
- **Molecules, Movement, and Motor Symposium**, Radcliffe institute, Boston, USA, October 14, 2011.
- **The Eleventh HFSP Awardees Meeting**, Montreal, Canada, June 5-8, 2011.
- **The 2nd Batsheva Seminar on Integrative Perspectives on the Development of the Musculoskeletal System**, Ein-Gedi, Israel, February 27 - March 3, 2011. Selected talk
- **The 2010 'Frontiers in Neurophotonic' Summer School**, Quebec, Canada, May 23 - June 2, 2010.
- EMBO practical course- **Developmental neurobiology from worms to Animals**, London, United Kingdom, July 1-15, 2009.
- **Development Now** – International meeting hosted by Weizmann Institute students of the life science faculties, Rehovot, Israel, March 17-18, 2009. Selected talk
- **MBL Embryology course**, Woods Hole, USA, June 14– July 27, 2008. Oral presentation
- **Batsheva Seminar on the Development of the Musculoskeletal System**, The Dead sea, Israel, March 2-6, 2008.
- EMBO practical course- **Studying cytoskeletal dynamics: from biology to physics**, Gif-sur-Yvette, France, September 24 - October 4, 2007. Oral presentation
- **EDRC 2007- 20th European Drosophila Research Conference**, Vienna, Austria, September 12-14, 2007.
- **3rd International PhD student symposium**, Goettingen, Germany, September 4-16, 2006.
- EMBO practical course- **Endocytosis and signaling during development**, Dresden, Germany, October 4-15, 2005. Oral presentation

References

- **Prof. Benny Shilo**, Ph.D., Department of Molecular Genetics, The Weizmann Institute of Science, Rehovot 76100, Israel. Tel: (972)-8-933916 Fax: (972)-8-3944108. benny.shilo@weizmann.ac.il
- **Dr. Yaqub Hanna**, Ph.D., Department of Molecular Genetics, The Weizmann Institute of Science, Rehovot 76100, Israel. Tel: (972)-8-9336358 Fax: (972)-8-3944108. jacob.hanna@weizmann.ac.il
- **Prof. Lee Niswander**, Ph.D., Department of Pediatrics, Section of Developmental Biology, University of Colorado Denver, Aurora, CO 80045. Tel: 303 724-3790 Fax: 303 724-3792. Lee.Niswander@ucdenver.edu
- **Dr. Eyal Schejter**, Ph.D., Department of Molecular Genetics, The Weizmann Institute of Science, Rehovot 76100, Israel. Tel: (972)-8-932760 Fax: (972)-8-3944108. eyal.schejter@weizmann.ac.il